

REMARKS**Summary of the Office Action**

Claims 4, 7, and 9 [*sic*] stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,982,629 to *Shoji et al.* ("*Shoji*").

Claim 10 [*sic*] is restricted as being drawn to another method of manufacturing a battery pack.

Summary of the Response to the Office Action

Applicants cancel without prejudice or disclaimer withdrawn non-elected claim 12 (*i.e.*, previously improperly numbered claim 10). See the typographical error in the previous submittal dated April 11, 2008. Accordingly, claims 4, 7, and 11 (previously improperly numbered claim 9) are presently pending.

All Claims Comply With 35 U.S.C. § 103(a)

Claims 4, 7, and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Shoji*. Applicants respectfully traverse the rejection for at least the following reasons.

The Office Action has not established a *prima facie* case of obviousness at least because *Shoji*, whether alone or in combination, fails to teach or suggest all the recited features of newly amended independent claim 4. Independent claim 4 recites, in part, "the circuit board is a square-shaped rigid-type printed wiring board made of glass epoxy resin; wherein the insulating layer is formed so as to cover a peripheral edge of the plated layer so that the surface of the circuit board and at least one of the surface of the base layer are not exposed externally, and the

step of forming the insulating layer, the step of mounting the electronic component includes mounting the electronic component on given positions of the circuit board by a solder reflow process.” *Shoji* fails to teach or suggest at least these features of claim 4.

Shoji fails to teach or suggest that both the circuit board and the insulating layer are made of glass epoxy resin. *Shoji* discloses an electrode structure of a semiconductor element, while the present invention discloses a method of manufacturing a circuit board used in a battery pack. *Shoji* discloses that SiO₂, SiN₄, polyimide resin, or the like, is used as material for an insulating layer and the circuit board is made of a silicon semiconductor e.g., SiO₂. See col. 9, lines 23-28 of *Shoji*. The present invention teaches that glass epoxy resin is used for both the circuit board and the insulating layer. *Shoji*, therefore, cannot teach a circuit board made of glass epoxy resin and an insulating layer made of glass epoxy resin because at least its circuit board is made of a silicon semiconductor. Applicants respectfully request that the Examiner provide a reference providing an example of a glass epoxy resin circuit board with an insulating layer of glass epoxy resin when combined with *Shoji* that would make obvious the present invention.

Although the Office Action asserts that the insulating layer is made of epoxy resin as disclosed in Fig. 9 and col. 11, lines 38-39 of *Shoji*, in fact, *Shoji* does not teach or suggest that the insulating layer is made of epoxy resin. In col. 11, lines 38-39 of *Shoji*, it is described that “the insulating material is one member selected from among SiO₂, SiN₄, glass and polyimide resin.” Thus, Applicants believe that *Shoji* fails to disclose the technical features of the present

invention are not taught or suggested with respect to glass epoxy resin provided on glass epoxy resin.

Further, the Office Action asserts that it would have been an obvious matter of design choice to a person of ordinary skill in the art to have substituted an insulating layer made of SiO_2 or SiN_4 with an insulating layer made of epoxy resin to be provided on the silicon semiconductor circuit board. Applicants respectfully disagree. Neither *Shoji* nor the alleged design choice of a person of ordinary skill in the art makes obvious the present invention. Therefore, the Office Action fails to provide a basis that the insulating layer is made of glass epoxy resin or that the circuit board of *Shoji* is made of glass epoxy resin. Thus, the rejection of claim 4 should be withdrawn.

As pointed out in M.P.E.P. § 2143.03, all the claimed limitations must be taught or suggested by the prior art to establish *prima facie* obviousness of a claimed invention. Because *Shoji*, whether taken alone or in combination, fails to teach or suggest each feature of newly amended independent claim 4, the rejection under 35 U.S.C. § 103(a) should be withdrawn.

Claims 7 and 11 depend from independent claim 4. Accordingly, claims 7 and 11 are also allowable because of the additional features they recite and the reasons stated above. In view of the above, the present invention is patentable over the combination of *Shoji* and knowledge of one of ordinary skill in the art at the time the invention was made.

CONCLUSION

In view of the foregoing, Applicants respectfully request entry of the amendments to place the application in clear condition for allowance or, in the alternative, in better form for appeal. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicants' undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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Dated: October 14, 2008

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